IBM Content Manager for iSeries

Planning and Installing

Version 5 Release 1

SC27-1133-00

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Note
Before using this information and the product it supports, read the information in “Appendix B. Notices” on page 25.

First Edition (May 2001)

This edition applies to Version 5.1 of and to all subsequent releases and modifications until otherwise indicated in new editions. This edition replaces GC34–4585–01

Contents

About This Book

This book provides site planning and installation personnel with information on preparing for and installing IBM Content Manager for iSeries (Content Manager for iSeries). It includes an overview of hardware and software components for the product and contains specific information for installing this version.

Who Should Use This Book

Use this book if you are responsible for planning, installing, or configuring the Content Manager for iSeries system for your enterprise.

If you are a *systems analyst* or *systems planner* who plans to install Content Manager for iSeries, this book helps you understand how the product fits into your operation, evaluate your workload, estimate the system you need, and design the interfaces to your current business applications.

If you are an *administrator* or a *supervisor* responsible for document processing, this book helps you understand how to analyze your current working environment, as well as develop the organization of document movement and processing workflow used with an image processing application.

If you are an *applications programmer* who plans to install and customize Content Manager for iSeries on your system, this book explains the scope of the work and tells where you can get additional information. If you are designing and developing an image processing application, it describes the capabilities of the components. Information on customizing helps you understand how to tailor the components to best fit your application requirements.

Skills You Need

Before beginning installation, you should be trained to install and operate Content Manager for iSeries. See your IBM® representative for a list of Content Manager for iSeries training classes.

You should have experience in installing and operating the Content Manager for iSeries system, IBM Token-Ring Network, and IBM 3995 Optical Library Dataserver. You should also know how to install software on Windows® platforms.

To design and install a custom system, you need to be familiar with the following:

- System Network Architecture (SNA) advanced program-to-program communication (APPC), Advanced Peer-to-Peer Networking® (APPN), or Transmission Control Protocol/Internet Protocol (TCP/IP).
- System operation and network administration

How to Use This Book

This book is also available in softcopy format. See “Prerequisite and related information” on page vi for details.

New or revised information in this book is denoted with a vertical bar (|).

Prerequisite and related information

Use the iSeries Information Center as your starting point for looking up iSeries and AS/400e technical information. You can access the Information Center in one of two ways:

- From the following Web site: `http://www.ibm.com/eserver/iseries/infocenter`
- From CD-ROMs that ship with your Content Manager for iSeries order.

Information included in your product package

The *IBM Content Manager for iSeries* CD-ROM contains each publication in portable document format (.PDF).

Table 1 shows the publications included with IBM Content Manager for iSeries. When you order IBM Content Manager for iSeries, you also receive IBM Content Manager for iSeries Client for Windows. You can also separately request Client for Windows.

Table 1. IBM Content Manager for iSeries publications

File name	Title	Publication number
c2711330.pdf	*Planning and Installing*	SC27-1133-00
c2711350.pdf	*Getting Started with Client for Windows*	GC27-1135-00
c2711360.pdf	*System Administration Guide*	SC27-1136-00
c2711370.pdf	*Messages and Codes*	SC27-1137-00
c2711380.pdf	*Understanding Advanced Workflow*	SC27-1138-00
c2711390.pdf	*Application Programming Guide and Reference*	SC27-1139-00

Copying the PDF files: To copy the PDF files from the CD-ROM to your hard drive:

1. Change to the directory for the language that you are using (for example, `ENU` for English).
2. Copy `*.PDF` files to your designated hard drive directory

Installing the PDF reader: The Adobe Acrobat Reader is available from http://www.adobe.com. To install Acrobat Reader, follow the instructions in the Acrobat installation program or the installation text file.

Support available on the Web

Product support is available on the Web. Click **Support** from the product Web site at:

`http://www.ibm.com/software/data/cm/`

The documentation is included in softcopy on the product CD-ROM. To access product documentation on the Web, click **Library** on the product Web site.

Operations Navigator

IBM iSeries Operations Navigator is a powerful graphical interface for managing your iSeries and AS/400e servers. Operations Navigator functionality includes system navigation, configuration, planning capabilities and online help to guide you through your tasks. Operations Navigator operation and administration of the server easier and more productive and is the only user interface to the new

advanced features of the OS/400 operating system. It also includes Management Central for managing multiple servers from a central server.

For more information on Operations Navigator, see the Information Center.

Information available on the World Wide Web

More iSeries information is available on the World Wide Web. You can access general information from the iSeries home page, which is at the following Web site:

`http://www-1.ibm.com/servers/eserver/iseries/`

To access workshops on advanced iSeries functions, use the Technical Studio, located at:

`http://www.iseries.ibm.com/tstudio`

How to send your comments

Your feedback helps IBM to provide quality information. Please send any comments that you have about this publication or other IBM Content Manager for iSeries documentation. You can use either of the following methods to provide comments:

- Send your comments from the Web. Visit the IBM Data Management Online Reader's Comment Form (RCF) page at:

  http://www.ibm.com/software/data/rcf

  You can use the page to enter and send comments.
- Send your comments by e-mail to comments@vnet.ibm.com. Be sure to include the name of the product, the version number of the product, and the name and part number of the book (if applicable). If you are commenting on specific text, please include the location of the text (for example, a chapter and section title, a table number, a page number, or a help topic title).

Chapter 1. Introducing Content Manager for iSeries

In this section you will learn about IBM Content Manager for iSeries and how to plan for and make configuration decisions for your enterprise. This section describes Content Manager for iSeries product components and how they work together to provide you with a document management solution that you can scale to meet the needs of your enterprise.

Content Manager for iSeries is a client/server system for capturing and managing documents on the iSeries platform. Using Content Manager for iSeries, your enterprise can capture, store, and manage objects on the iSeries and can archive these to an optical data server.

In an office, documents are typically stored in file cabinets. These file cabinets typically contain folders, which contain various types of the documents. Depending on where the file cabinets reside, it could be time-consuming or difficult to retrieve and file these documents again. Using Content Manager for iSeries, you can electronically store documents in an *index class*, which is similar to an actual file cabinet. An index class can store documents, as well as folders. The iSeries can now provide management for your file cabinets and indexed folders.

Planning Your Content Manager for iSeries Solution

To effectively plan for your Content Manager for iSeries solution, you need to analyze your current information management requirements. After gathering data about the current system and outlining requirements for your solution, you can design a Content Manager for iSeries implementation that meets your enterprise's specific needs.

Analyzing Your Current Environment

Here are some considerations you will need to determine how your enterprise manages information in the current environment.

- Average size of objects when stored electronically
- Orientation of each object (landscape or portrait)
- Number of objects currently stored on your server
- Number of objects that will be stored
- How objects and related information are currently indexed
- Information that will be useful for existing applications that is already contained in the objects
- Business processes that use this information
- Active life of an object
- How often your enterprise will need to refresh the objects
- How long your enterprise will need to retain objects once they are no longer active
- Who will use the objects
- Number of people who will need to have access to the objects
- Where these people are located
- Tasks for which these objects will be used
- Destination of the objects
- Number of locations that will need to store information about the objects
- Number of additional objects your enterprise will need to store daily
- Amount of information about the objects that will need to be updated daily

- How often the same objects or information about them will be accessed

Knowing this information in advance will help you make such decisions about your Content Manager for iSeries system–such as how many servers your enterprise will need, their size, where they will be located, and the number of clients or users that will need access to these servers.

Choosing a Configuration for Your Content Manager for iSeries System

Before installing a Content Manager for iSeries system, you must understand and determine which Content Manager for iSeries components will best meet your enterprise's needs. Table 2 describes the components that comprise the Content Manager for iSeries product. You can use a combination of these to build your Content Manager for iSeries system.

Table 2. Components of Content Manager for iSeries

Component	Description
Content Manager for iSeries Library Server	• Manages library data • Maintains index information • Controls access to objects stored in object servers
Content Manager for iSeries Object Server (optional)	• Contains multimedia objects stored in the library
Content Manager for iSeries client, including application programming interfaces (APIs)	• Lets users access information stored on the library and object server • Supports Visual Basic • Provides high-level APIs, which enable development of image applications on Windows 95 and Windows NT® workstations or integration with applications running in those environments
Content Manager for iSeries Workflow Builder (optional)	• Separately orderable feature of Content Manager for iSeries • Lets the system administrator or business process owner define and update work processes.
Optical systems (optional)	Archives objects from the Content Manager for iSeries object server

Library Server

The Content Manager for iSeries library server is the iSeries system on which your library services application is installed. You can have only one library server. The *library* is a database that manages document folders and their attributes based on requested tasks. The library server maintains indexing information and manages storage of Content Manager for iSeries objects.

When you install Content Manager for iSeries, you are installing a combination library server and object server. Content Manager for iSeries supports one library server with one or more object servers. If you determine that you need the support of a second object server, you must install the Content Manager for iSeries secondary processor on iSeries system servers other than the library server.

The Library Server is packaged, ordered, and shipped as two separate pieces: One is labeled the ″Content Manager for iSeries″ and the other is labeled the ″IBM Content Manager for iSeries Library and Object Server.″ Both pieces are required.

Refer to the *IBM Content Manager for iSeries: System Administration Guide* for information about defining your library server.

Object Server

A Content Manager for iSeries object server is a repository for objects stored in the system. Users store and retrieve objects in the object server through requests that the object server routes. The object server stores objects based on storage management definitions that you define through the Content Manager for iSeries library server, object server, and object directory profiles.

The Object Server is packaged, ordered, and shipped as two separate pieces: One is labelled the ″Content Manager for iSeries″ and the other is labeled the ″IBM Content Manager for iSeries Object Server.″ Both pieces are required. See “Appendix A. Configuring a Stand-Alone Object Server” on page 23 and refer to the *IBM Content Manager for iSeries: System Administration Guide* for information about defining an object server.

Client

You can install the Content Manager for iSeries client on a Windows 98, Windows Millenium Edition, Windows NT, or Windows 2000 workstation. The client application lets users request access to objects stored on the Content Manager for iSeries object server. It can also display item information stored in the Content Manager for iSeries library server.

See the *Getting Started with Client for Windows* for more information.

Workflow Builder

The Workflow Builder feature of the Content Manager for iSeries product lets you create a graphical representation of a work process. A process is a set of procedures and rules that dictate how items are processed in workflow. Workflow is a system that automates folder and document processing and eliminates much of the manual work required to route individual documents and groups of documents.

Optical System

An optical storage device is an optional component in your Content Manager for iSeries system. You can use optical storage to replace other types of storage media so you can archive documents. You can move documents you do not currently need for processing from DASD storage to optical storage. When you need them again, they can be moved back to DASD from optical. The advantage of using optical storage is that you can store large amounts of information in less space for less cost. You can attach optical storage through a local area network (*LAN-attached*) or directly to an iSeries server (*direct-attached*).

Chapter 2. Planning and Designing a Content Manager for iSeries System

Before installing your Content Manager for iSeries system, you must decide which Content Manager for iSeries components to install, based on the following:

- Hardware
- Communication protocols
- Licensing considerations (compliance monitoring)
- Environment
- System design

For example, you might decide to use more than one Content Manager for iSeries object server because your documents require a large amount of storage. You might decide that you want to archive your documents from your object server to an optical system. You might have clients on Windows NT and other clients on Windows 95.

Planning for Hardware Components

You can define one iSeries system to perform both library and object server functions. Consider the following as you choose a library server, object server, or both:

iSeries space
Space for the program files and your documents for the near future. The number of documents and space required can help you determine whether you might need a second object server. If more than one of your offsite locations stores and retrieves documents, you might also want to consider having an object server at each site.

Type of iSeries system
Systems with more memory and processing power are better able to multitask or run several Content Manager for iSeries processes, such as background and interactive processes executing concurrently.

Optical system
You can attach an optical system to the iSeries as either a direct-attached or LAN-attached optical system. You can attach the optical system directly to the iSeries library or object server. Content Manager for iSeries supports optical devices that offer erasable and write once, read many (WORM) optical technology, as well as multifunction optical devices. Multifunction devices support both erasable and WORM disks in the same library. Content Manager for iSeries supports erasable volumes as WORM.

Consider the following when planning for an optical system:

Availability of space on your iSeries system
If space is limited, you might want to consider archiving documents to optical and removing them from DASD–in this case, the object server.

Document retention time
If you access documents infrequently but need to maintain them for a long period of time, you might want to archive them to optical and remove them from DASD.

Potential backup and recovery media
If you store documents to optical while working with them on DASD, you can recover them from optical in the event of system failure.

Workstation client
The number of workstations is based on the number of concurrent users.

Refer to the *IBM Content Manager for iSeries: System Administration Guide* for more information about storage management and optical storage.

Planning for Communications

The Content Manager for iSeries system supports either SNA or TCP/IP for communications between the client and the server.

- SNA communications

  To use SNA for communications, you must install and configure a communications product on the workstation that implements APPC and the common programming interface for communications (CPI-C) level 1.2. For example, eNetwork Personal Communications or Client Access™ /400.

- TCP/IP communications

  If you choose TCP/IP as your communications protocol, TCP/IP sockets communications support will be used. To enable clients to communicate using TCP/IP, a background server job must be started on the iSeries. See "Configuring for TCP/IP" on page 18 for further information.

See *Getting Started with Client for Windows* for information on defining your communications.

About Content Manager for iSeries

Content Manager for iSeries is a client/server application. Its workstation client drives all of its functions, and the iSeries library server manages all processing.

Content Manager for iSeries offers a complete object management system through its client/server architecture. The Content Manager for iSeries client provides a graphical user interface (GUI) that lets you bring documents into the system view so you can work with, store, and retrieve them.

With the Windows NT and 95 client, the basic flow of documents and information is simple. To store a document in the system, you can import it from a directory or capture it by scanning its pages. You can then index the document with information that later helps you identify and retrieve it. At that point, you can electronically route it to other users, who can do the following:

- Organize documents into electronic folders
- Retrieve groups of related documents and folders
- Send a document or folder to other users for additional processing, using ad-hoc routing
- Add a note to a document or folder
- Modify a document by adding highlights, comments, or other annotations
- Print a document on the workstation
- Place a document or folder on a predefined workflow process

Planning for Compliance Monitoring

Content Manager for iSeries uses the OS/400® License Management functions to manage its license usage. It implements a user-based pricing structure, where license entitlement is based on the number of concurrent users authorized to access the product. A *concurrent user* is defined as any user, program, or job accessing Content Manager for iSeries, for example:

- If a single job processes requests for multiple users, each user is considered to be a concurrent user.
- If a single user ID is logged on to multiple Content Manager for iSeries sessions, each session is considered to be a concurrent user.

When the product is shipped, the default user limit is set to zero.

The limit will need to be changed to reflect the number of users defined on your IBM Customer Agreement (ICA). See "Chapter 3. Installing and Customizing Content Manager for iSeries" on page 11.

System Task Considerations

You will also need to consider and plan for the following when designing your Content Manager for iSeries system:

- Security
- Backup and recovery
- Storage management
- Organizing and defining your database

Defining Security Levels

Based on security levels that you define within the Content Manager for iSeries environment, you can enable access to the following:

- Content Manager for iSeries itself
- Documents
- Functions

Access to Content Manager for iSeries

When you install it, Content Manager for iSeries creates a default system administrator user ID and default group profile, both of which have *ALL authority to the objects in each Content Manager for iSeries library. The installation program installs all Content Manager for iSeries libraries with *PUBLIC *USE access and *PUBLIC *EXCLUDE on a subset of program objects in the program library. Objects with *PUBLIC *EXCLUDE are functions having commands that no one outside Content Manager for iSeries should execute.

You can assign each user working in the Content Manager for iSeries environment to the group profile. If you have your own security access procedure, be sure that your users have *ALL authority to Content Manager for iSeries objects. See "Chapter 3. Installing and Customizing Content Manager for iSeries" on page 11 for more details about user IDs that the installation program creates.

Access to Documents

When you install Content Manager for iSeries, the installation program creates a router user ID and associates it with the group profile. Users can sign on to the router with this user ID so that the same user ID owns all objects in the object

directories. However, if you plan to maintain a large number of objects on DASD, you might want to consider using more than one router ID to avoid reaching iSeries ownership limits.

If you create your object directories using the Content Manager for iSeries object directory profile, the user who creates the profile becomes the owner of the object directory and the group profile entered on the panel will have *ALL authority to the object directory.

See "Chapter 3. Installing and Customizing Content Manager for iSeries" on page 11 for more information about the router ID that the installation program creates and to the *IBM Content Manager for iSeries: System Administration Guide* for details on creating object directories.

Access to Functions

Each Content Manager for iSeries user must have a Content Manager for iSeries user profile. Each user profile is assigned a privilege set. A user privilege set defines the functions that a user is allowed to perform. Through the privilege set profile, the system administrator defines the functions that each user is allowed to perform. You can further control the privileges that you assign to users by creating an access list and associating the access list with index classes, workbaskets, and processes. An access list consists of one or more user IDs or user groups and a privilege set that you associate with each ID or group in the list. A user group consists of individual user IDs that you define under a single name. Refer to the *IBM Content Manager for iSeries: System Administration Guide* for details on creating privilege sets, user profiles, groups, and access lists.

Backup and Recovery

When planning your backup and recovery strategy, you need to consider the following parts, which are integral to your Content Manager for iSeries system:

- Documents
- Content Manager for iSeries files that manage document processing
- Any custom objects you support

As you plan your recovery strategy, consider that backups of these objects must remain synchronized to ensure that you can successfully recover your system in the event of failure.

Backup considerations

Here are some things to consider when you are planning backup for your system:

1. Neither `Operational Assistant` nor `SAVLIB *ALLUSR` backup procedures will save libraries starting with the letter "Q", because those libraries currently appear to the system as IBM libraries. This has implications for the QUSRVI library (if that is the name you chose for your iSeries file library). You must manually back up this library using the `SAVLIB QUSRVI` command.
2. Remember to backup images as well as the libraries on your system. You specified where your images were to be stored when you defined your iSeries Object directories. They can be in one of the following:

   `QDLS`

   "Root"

   `QOpenSys`

   `QLANSrv`

You should use the SAVDLO or SAV command to backup your images. Please see your iSeries reference books for more information, or contact IBM.

Storage Management

Content Manager for iSeries provides distributed storage capabilities using iSeries object servers to help you manage your DASD storage space. Using Content Manager for iSeries profiles, you can specify the object server on which a document is to be stored when it is entered into the system.

You can store documents on the following media:
- Combined library and object server
- One or more stand-alone object servers
- Optical system

Refer to the *IBM Content Manager for iSeries: System Administration Guide* for more information about storage management systems.

Organizing and Defining Your Database

Once you have installed Content Manager for iSeries, you must define your environment by defining the profiles that comprise your Content Manager for iSeries environment. Refer to the *IBM Content Manager for iSeries: System Administration Guide* for more detail about the profiles that define your environment:
- Privilege sets
- User profiles
- Groups
- Access lists
- Key fields
- Index classes
- Workbaskets
- Collections
- Servers
- Object directories
- Storage classes
- Optical systems

Designing Your System

To design your Content Manager for iSeries system, create a map of what you plan to use–servers, workstations, and optical systems–and define how to connect them with communication links.

Follow these steps to design your system:

1. Determine the number of locations in your enterprise that will need to use your system.
2. Determine the number, type, and locations of library servers in your system. Work closely with your IBM representative to determine the following:
   - Size of your library servers
   - Number of object servers you need
   - Size of the optical system, if you decide to use one

   Consider also the following:
   - Capacity
   - Frequency of access

- Response requirements
- Client locations

3. Determine the number, type and locations of each workstation in your system. Determine the number of clients based on business needs, such as the number of users who need simultaneous access to your system at any given time.
4. Define a device for each workstation on the iSeries server. You can do this by setting the AUTOCONFIG parameter on your iSeries system so that the device is automatically configured the first time the user logs on to the iSeries system. For your records, record the device name for each workstation.

Chapter 3. Installing and Customizing Content Manager for iSeries

This section explains what you need to do before beginning installation, details the hardware and software requirements, and provides step-by-step instructions for installing and customizing Content Manager for iSeries.

Before You Begin

Review this chapter and complete the following tasks before you begin installation:

- Install the required version of the OS/400 operating system and have applied the latest PTFs. (See "Hardware and Software Prerequisites".)
- The Content Manager for iSeries environment can contain one (1) Content Manager for iSeries library/object server and multiple Content Manager for iSeries object servers.

Hardware and Software Prerequisites

Table 3 defines the hardware required to install and use the client application. Table 4 lists the operating system, networking and disk space required to install and use the client application.

Table 3. IBM Content Manager for iSeries Client for Windows hardware requirements

Component	Description
Processor	Intel Pentium® or equivalent
RAM	64 MB or greater
Hard disk	160 MB fixed disk
Display	VGA (800x600 resolution and 256 color mode)
Other hardware	• CD-ROM reader (installation only) • network adapter (if components are installed on multiple workstations) • ASPI-compliant SCSI adapter or scanning • Mouse

Table 4. IBM Content Manager for iSeries Client for Windows software requirements

Component	Description
Operating system	One of the following: • Windows 98 • Windows NT 4.0 • Windows 2000 • Windows Millenium Edition
Network communication	TCP/IP installed with Windows
Disk space	• Client application: 50–75 MB depending on components chosen. • Toolkit only: 20 MB

Table 4. IBM Content Manager for iSeries Client for Windows software requirements (continued)

Component	Description
Other	C Runtime Library — required for Client Toolkit

Content Manager for iSeries Workflow Builder

Table 5 defines the hardware required for Workflow Builder. Table 6 lists the operating system, networking and disk space required for Workflow Builder.

Table 5. IBM Content Manager for iSeries Workflow Builder hardware requirements

Component	Description
Processor	Intel Pentium or equivalent
RAM	64 MB or greater
Hard disk	160 MB fixed disk
Display	VGA (800x600 resolution and 256 color mode)
Other hardware	• CD-ROM reader (installation only) • network adapter (if components are installed on multiple workstations) • Mouse

Table 6. IBM Content Manager for iSeries Workflow Builder software requirements

Component	Description
Operating system	One of the following: • Windows 98 • Windows NT 4.0 • Windows 2000 • Windows Millenium Edition
Network communication	TCP/IP installed with Windows

Content Manager for iSeries Server

Table 7. Server Hardware Requirements

Hardware	Minimum
CPU	iSeries, Model 270

Table 8. Server Software Prerequisites

Software	Minimum
Operating system	OS/400 V5R1 or higher
Optical (optional)	• Direct-attached 3995: IBM Optical Library Dataserver Support • LAN-attached 3995: None

Multiple Environment Considerations

Multiple environments refers to multiple IBM Content Manager for iSeries copies at the same release level on the same server. It does not refer to multiple operating

systems. The following steps for loading IBM Content Manager for iSeries should be run once for each IBM Content Manager for iSeries environment you plan to install. Each time you follow these steps, you can specify a different set of library names. By doing this, the user can operate multiple environments of IBM Content Manager for iSeries on a single server, if sufficient storage exists.

The IBM Content Manager for iSeries file library must be unique to each IBM Content Manager for iSeries environment. Although you need not duplicate IBM Content Manager for iSeries panel, exit, GPL, API and program libraries, different IBM Content Manager for iSeries environments can share them. When installing additional environments, specify the name for the IBM Content Manager for iSeries file, GPL, API and program libraries. The installation program checks to see if these exist. If not, it restores them from tape. If they do exist, it checks their release level. If the level is not current, installation stops. If it is current, installation proceeds but does not copy the libraries again.

The EKDFORMS folder that IBM Content Manager for iSeries uses is common to all environments of the IBM Content Manager for iSeries on any one processor. The QDOC library holds this folder, which only needs to be created once. Therefore, forms are intermixed even though data files and documents are separate.

You should establish a unique panel library in the multiple environment, only if you use the file cabinet processing function.

If you are installing multiple environments of IBM Content Manager for iSeries on a single iSeries computer, you must follow these steps:

- Define a unique optical path and volume, folder, or subdirectory for each environment.
- Define a unique image folder that each environment will to store documents.

Limitations

The limitations and restrictions that exist when you run multiple IBM Content Manager for iSeries environments on the same server are as follows:

File cabinets
: Multiple environments should not use file cabinets to share the panel library because display files that one environment creates could be overlayed if the second environment uses the same file cabinet name.

Fax export
: The transmission status queue on the Fax Configuration panel (EKD96901) should be unique across all IBM Content Manager for iSeries environments on the same server. If not, fax transmission completes successfully, but there will be permanent entries for each faxed document on the Work with Outbound Faxes panel (EKD96101).

Fax import
: You can have one fax import process active per IBM Content Manager for iSeries environment, as long as you have defined a unique fax receipt queue for each fax workstation. To run fax import concurrently for each IBM Content Manager for iSeries environment, you must have a separate fax workstation for each IBM Content Manager for iSeries environment.

Cross-system import
: Only one cross-system import process can be run per server.

Cross-system export

Only one cross-system export process can be run per server.

To prevent procedural errors when you are using cross-system import and export among multiple environments, do the following:

1. Stop cross-system export on the originating server and verify the source and destination locations.
2. Stop cross-system import on the destination AS/400, if active. Be sure that all previous cross-system import documents have been received for this machine. Then start cross-system import.
3. Start cross-system export on the originating server.

Installing Content Manager for iSeries

Content Manager for iSeries is shipped on the iSeries stacked media. Use the Work with Licensed Programs menu to load all product components on the iSeries system. From the menu you can perform all required program management functions, such as deleting, and updating Content Manager for iSeries.

Set QALWOBJRST to ALWPGMADP. You must restore this to its original value after installation, so be sure to record that value now on your installation checklist.

To access the Work with Licensed Programs menu, type GO LICPGM on the iSeries command line and select the national-language version of Content Manager for iSeries appropriate for your iSeries system. See the iSeries *Software Installation* document if you are not familiar with the GO LICPGM command.

From the Install Licensed Program panel, specify option 1, Licensed Program 5722VI1, and Product Option *BASE, to install the base option of the Content Manager for iSeries product. When the base option is successfully installed, from the Install Licensed Program panel specify option 1, Licensed Program 5722VI1, and Product Option 0001, to install option 1 of the Content Manager for iSeries product. You must install both options successfully to have a complete copy of Content Manager for iSeries library server and object server on your system. Once the product has been successfully installed, you must perform the post installation command, EKDPOST, to define a working environment for your users.

Post Installation

Once Content Manager for iSeries installation has completed, there are some post installation steps you need to complete so that your application environment is properly defined.

Before you begin the post installation

The EKDPOST command sets up the user environment for the new release. Before you begin the post installation, you should be aware of the following:

1. PTFs should be applied to the product **before** the EKDPOST command is executed.
2. The QSECOFR profile must be used to execute the EKDPOST command.
3. Once you sign on, add the QVI library to the library list (using the ADDLIBLE command).

Post Installation Command for Content Manager for iSeries

The post installation command for Content Manager for iSeries creates a working environment as follows:

- It creates the working database library.

  This library contains all the files needed to control the Content Manager for iSeries environment and any objects that are created by Content Manager for iSeries. The default library name is QUSRVI.
- It adds an autostart job entry to the QSYSWRK subsystem. This job is automatically started when the subsystem is started, and will perform Content Manager for iSeries initialization. This autostart job entry must be defined for the subsystem where Content Manager for iSeries background processors are run. By default, this is QSYSWRK. If you run the IBM Content Manager for iSeries background processes in a subsystem other than QSYSWRK, you must add an autostart job entry to this subsystem with the same parameters as the entry in QSYSWRK and then remove the entry from the QSYSWRK subsystem.
- It registers the Content Manager for iSeries host exit points with the OS/400 registration facility.
- If this is a first time installation of Content Manager for iSeries, it creates the following:
  - Default system administrator
  - Default group profile
  - Default router ID
  - Default output queue

To execute this command, from the command line, type EKDPOST and press F4. The parameters for the command are defined as follows:

Table 9. Parameters

Parameter	Required/Optional Parameter	Definition
Type of Install	Required	This parameter is used to specify whether this is a new install or if this is an install for an existing environment. 1 = New environment 2 = Existing environment[1]
Environment	Required	This parameter is used to specify whether you are installing a single environment, or if you are installing more than one environment on the same server. 1 = Installing a single environment 2 = Installing multiple environments on the same server

Table 9. Parameters (continued)

Parameter	Required/Optional Parameter	Definition
Content Manager for iSeries file library	Required	This parameter is displayed if you are installing more than one environment, or if you press F10. Each environment must have a unique file library. An existing environment may choose to keep the existing file library name (usually EKDLIBFIL). If so, enter the existing file library name here.
File Library	Required when Type of Install is 2 (existing).	The name of the file library being migrated. If this name is the same as the Content Manager for iSeries file library name in the above field, the library name will not be changed. If this library name is different from the name in the Content Manager for iSeries file library field, this library will be renamed to the name in the Content Manager for iSeries file library field.
Remote Location	Required, if this is a stand-alone object server installation	This parameter is displayed, if you are installing a secondary object server environment. This is the name of the location of the primary library/object server.
Remote Library	Required, if this is a stand-alone object server installaiton	This parameter is displayed, if you are installing a secondary object server environment or if you press F10. This is the name of the file library on the primary library/object server associated with this secondary object server.
3–letter prefix	Optional, required if the default prefix (QVI) already used.	This parameter is displayed if you are installing more than one environment and it is a new environment or if you press F10. It is the 3-letter prefix that will be used to create the new user specific objects, such as job description, group profile, and system administrator profile.
Notes: 1. Migrating from VI/400 V4R1 or VI/400 V4R3 are the supported migration paths. The migration path will be determined by the EKDVERSION data area in the file library.		

Completing Installation

Once you perform the following activities, installation is complete:

- Create or modify iSeries user profiles that will interface with the Content Manager for iSeries application.
- Assign authorities to the Content Manager for iSeries libraries.
- Configure for TCP/IP.
- Create Content Manager for iSeries application profiles. See the *IBM Content Manager for iSeries: System Administration Guide*.
- Remove the Version 4 Release 1 environment.

Create or Modify User Profiles

Default User Profiles

If this is a new installation, the following user profiles were created during the post installation process:

- QVIGROUP — Default group profile
- QVIADMIN — Default system administrator
- QVIROUTE — Default router ID
- QVIOWNER — Object owner

If you were prompted for a 3-character prefix at the beginning of installation, the default profiles would be xxxGROUP, xxxADMIN, and xxxROUTE -- where xxx represents the 3-character prefix you entered.

Content Manager for iSeries creates objects on the iSeries such as data queues, data areas, folders, and files. The installation program creates the user ID QVIOWNER during installation. This user ID owns Content Manager for iSeries objects installed on the iSeries, as well as those that Content Manager for iSeries creates interactively. Since QVIOWNER has minimal authorities, your application should not use it.

Passwords for the user profiles that the installation program creates are set to *NONE. While signed on to the system with QSECOFR authority, you must assign a password to the default system administrator user profile so that you can use it to define your Content Manager for iSeries profiles. Since QSECOFR is not defined to the Content Manager for iSeries as an authorized user, you must use the default system administrator to set up your initial profiles.

Defining Additional User Profiles for Use with Content Manager for iSeries

User profiles must be defined for each user interfacing with Content Manager for iSeries. You must create these profiles using the characteristics defined in Table 11.

The post installation process created default objects that can be used when defining the user profiles. These objects are as follows:

- QVIJOBD – Default job description
- QVIOUTQ – Default output queue
- QVIGROUP – Default group profile

If you were prompted for a 3-character prefix at the beginning of installation, the default profiles would be xxxJOBD, xxxOUTQ, and xxxGROUP -- where xxx represents the 3-character prefix you entered.

Table 10. Characteristics Needed for Content Manager for iSeries Users

Parameters	Characteristic	Value
User class	Users	*USER (minimum)
	System administrator	*SYSOPR (minimum)
Special authority	Users	*JOBCTL
	System administrator	*JOBCTL *SAVSYS *SECADM *SPLCTL
Job description	Library list	QTEMP QUSRVI QVI QGPL QOPTICAL (optional) QSYS2 (optional) If you have optical, see "Chapter 4. Planning for Optical Storage" on page 21.
	Job queue	QSYS/QSYSNOMAX This will ensure that Content Manager for iSeries background jobs are started in the QSYSWORK subsystem.
Initial menu	System administrator	QVI/VI

Modifying Existing Content Manager for iSeries User Profiles

Existing Content Manager for iSeries users who are upgrading their application from VI/400 V4R1 or V4R3, must modify the users' job description as follows if they do not plan to use the WAF feature:

- You must reflect the new library list. Where there were five libraries, there are now two libraries: QVI and QUSRVI (or file library name you specified during post migration).
- Change the job description job queue to QSYS/QSYSNOMAX, if you are planning to start any background jobs including interactive retrieve.

Assigning Authorities

Assigning authorities involves issuing a GRTOBJAUT (Grant Object Authority) command. Type the following commands for each user profile or group profile not previously defined in Content Manager for iSeries, where **library** is the name of the library installed and **profile** is the name of the group profile or user profile.

```
GRTOBJAUT OBJ(QUSRVI/*ALL) OBJTYPE(*ALL) USER(profile) AUT(*ALL)
GRTOBJAUT OBJ(QSYS/QUSRVI) OBJTYPE(*LIB) USER(profile) AUT(*ALL)
```

For QVI:

```
GRTOBJAUT OBJ(QVI/*ALL) OBJTYPE(*PGM) USER(profile) AUT(*ALL)
```

Configuring for TCP/IP

TCP/IP is supported via sockets for the IBM Content Manager for iSeries client and any workstation application that uses the IBM Content Manager for iSeries APIs. If you will be using TCP/IP for communications, perform the configuration described in this section.

To enable clients to communicate with the server using sockets communication support, a background server job must be started on the iSeries. To simplify starting this background job, define a prestart job entry as shown below.

```
ADDPJE SBSD(QSERVER) PGM(QVI/QVI400)
USER(QVITCP) THRESHOLD(1) ADLJOBS(0) JOB(QVI31015)
INLJOBS(1) MAXUSE(*NOMAX) CLS(*LIBL/QINTER)
```

The number of jobs must be set to one (1). Choose the subsystem and class that is appropriate for your application. The user profile specified above, QVITCP, is not a pre-defined profile. Therefore, we recommend you create this profile as follows:

```
CRTUSRPRF USRPRF(QVITCP) USRCLS(*SECADM) INLMNU(*SIGNOFF) +
SPCAUT(*ALLOBJ) JOBD(QVIJOBD) GRPPRF(QVIGROUP) PASSWORD(*NONE)
```

Specifying an initial menu of *SIGNOFF ensures that the user ID is secure by preventing sign on. Security administrator authority (*SECADM) and all object authority (*ALLOBJ) are required for this user ID. Use the default job description, QVIJOBD, to ensure the required Content Manager for iSeries libraries are in the library list of the background job.

The program QVI400, which is defined in the prestart job entry, starts the background job required for Content Manager for iSeries TCP/IP communications support. The job will appear under the selected subsystem as QVI400. An additional instance of this server job will be spawned with a job name of QVI400 or QVI400SRV, depending on the operating system level. When a request is received from a workstation, the socket is passed to a waiting server instance, and another server job is spawned to be ready for the next workstation request.

The member QVI400 in file QCLSRC of library QVI contains the source code for the program defined in the prestart job entry. The source code contains the value of the port number to be used for connecting to the server job. The default port is 31015. If you would like to use a different port, change the port number and recompile this program before starting the background server job.

Remove the Version 4 Release 1 Environment

The following libraries are no longer used in Content Manager for iSeries and can be deleted from the server:

- Program library (default name: EKDLIB)
- Text library (default name: EKDLIBTXT)
- Exit library (default name: EKDEXIT)
- API library (default name: EKDAPI)
- GPL library (default name: EKDGPL)

Attention

If you are planning to continue to use a Workfolder Application Facility Version 4 Release 1 environment, do not remove the Version 4 Release 1 libraries. However, a program temporary fix (PTF) is required to be compatible with this version of Content Manager for iSeries.

Chapter 4. Planning for Optical Storage

This chapter explains how to customize Content Manager for iSeries for use with IBM 3995 Optical libraries.

Before You Begin

Except for LAN model A23, only specially trained professional hardware service personnel should install the 3995 Optical Library Dataservers. Refer to the manuals that accompanied your optical equipment for more information about installation and configuration.

Completing Setup for Use with Content Manager for iSeries

Once you have the 3995 installed and communicating with the iSeries, perform these tasks to complete setup, as described in this section:

1. Customize Content Manager for iSeries for the 3995 Optical Library Dataserver
2. Add and initialize the optical cartridges for the 3995
3. Set up LAN-attached optical for direct retrieval (optional)
4. Address direct-attached performance considerations (optional)
5. Verify that you can store documents to optical storage

Customizing Content Manager for iSeries for the 3995 Optical Library Dataserver

To customize Content Manager for iSeries to access a 3995 Optical Library Dataserver, the system administrator must define the optical system in the following Content Manager for iSeries profiles.

Optical system profile
: Defines the optical configuration

Storage class profile
: Defines how to store the object

Collection profile
: Associates an object to a specific storage class

Refer to the *IBM Content Manager for iSeries: System Administration Guide* for information about profile maintenance.

Once the system administrator has defined the optical system to Content Manager for iSeries, verify that Content Manager for iSeries users have the following:

- Access to the optical library to store and retrieve documents
- Authority to the Optical Library Dataserver Support/400

Adding and Initializing Optical Cartridges

Based on the information you specified in the Content Manager for iSeries Storage class profile, you are now ready to initialize optical cartridges in your 3995. You must also create the first optical directory and subdirectory, as defined in each storage class profile. Content Manager for iSeries automatically creates subsequent directories and subdirectories. For instructions on completing these steps, refer to the manuals that accompanied your optical equipment.

Setting up Workstations for Direct Display from LAN Attached Optical

To display and print documents directly from optical without copying them to iSeries DASD, enter `NET USE H:\\IBM3995\ALIAS` on each workstation from a command prompt, where *H* represents the specific optical system ID you defined in the Content Manager for iSeries optical system ID profile for the LAN-attached 3995. As used in this command, `IBM3995` is the computer name.

Addressing Direct-Attached Performance Considerations

Users of both Content Manager for iSeries and direct-attached 3995 optical can improve performance by electing not to copy file attributes. These attributes are written to optical for each document stored on direct-attached 3995. However, optical store and optical retrieve functions in Content Manager for iSeries do not use these file attributes, so you can specify that you do not want the attributes copied to optical. To do this, refer to the manuals that accompanied your optical equipment.

Verifying Document Storage to Optical

You can perform an optical storage verification test by scanning test documents using Content Manager for iSeries and storing them on the optical subsystem using Content Manager for iSeries storage management. Before beginning this test, be sure that you have formatted several optical platters.

Follow these steps to run the test. Refer to the *IBM Content Manager for iSeries: Getting Started with Client for Windows* for information about scanning and to the *IBM Content Manager for iSeries: System Administration Guide*.

1. Sign on to the iSeries system with a valid Content Manager for iSeries user profile. Scan the test data. Make sure the collection profile for the index class to be used for the test documents to be scanned indicates that **Store on optical** is set to Yes, optical storage method is set to 2, and storage class/optical system ID points to your 3995.
2. Verify that your storage class or optical system is set to store to the library or libraries you want to test.
3. Start the Content Manager for iSeries optical store processor to perform the store operation to the 3995 Dataserver. The store processor remains active as long as store request records exist, before going into the delay wait state.
4. Verify that all store requests have been processed. Look at the EKD0080 error file on the server to be sure no errors caused the 3995 to go into the delay wait state.
   a. On the dynamic console, select **Volume operations** menu.
   b. Select the desired volume, folder, and subdirectory to list all stored documents.
5. To verify that storage was successful to the optical platter, perform the steps necessary for your type of optical. For more information, refer to the manuals that accompanied your optical equipment.

Appendix A. Configuring a Stand-Alone Object Server

At this point in the installation process, you should have completed the following tasks:

- Install the Content Manager for iSeries library (primary) server.
- Install the Content Manager for iSeries object (secondary) server.

If you have completed these tasks, you are ready to configure Content Manager for iSeries as a stand-alone object server.

Before You Begin

If you already have user profiles on the iSeries system, you do not have to create new user or group profiles. However, previously existing users must be authorized to access, file, and program libraries (specified on the Primary Processor Installation panel), and these libraries must exist in the users' library lists. You can authorize access to libraries by using the GRTOBJAUT command from an iSeries command line. Each user must be enrolled in the system directory using the ADDDIRE command.

If users do not have the appropriate authorities, change their user profiles using the CHGUSRPRF iSeries command. See *IBM Content Manager for iSeries: System Administration Guide* for details on user profiles. They should also have access to any object directories and subdirectories created. If they do not, use the appropriate iSeries command to allow access to the restored and newly created directories and subdirectories.

Considerations for a Secondary Server

Before installing Content Manager for iSeries on a secondary server, be sure the following prerequisites have been satisfied:

1. On the primary server, you must make sure the secondary server is authorized to the Content Manager for iSeries file library on the primary processor for DDM file manipulations. Assigning authorities involves using a GRTOBJAUT (Grant Object Authority) command. To grant authorization to the file library, log on the primary server as the security officer and enter the following commands on an iSeries command line:

   ```
   GRTOBJAUT OBJ(QUSRVI/*ALL) OBJTYPE(*ALL) USER(profile) AUT(*ALL)
   GRTOBJAUT OBJ(QSYS/QUSRVI) OBJTYPE(*LIB) USER(profile) AUT(*ALL)
   ```

   library Name of the Content Manager for iSeries file library for the primary server (for example, QUSRVI).

   profile If you have a default user defined in the communications (QCMN) subsystem, use the name of that default user. Otherwise, if no default user is defined, use QUSER.

2. The system date on the primary and secondary server processors must be the same.
3. The secondary server is set up on the IBM Token-Ring Network and can communicate with the primary server and any other secondary servers. If your servers are running at security level 20 or above, the device description for the primary and secondary processors must have the SECURELOC parameter set to *YES. This parameter is not applicable if the device also specifies

APPN(*YES). In this case, you must create a remote configuration list on each system, and specify that the Remote Location parameter is set to *YES. These parameters are used to secure the communications between servers. Refer to the *IBM AS/400 Communications: User's Guide* for more information about setting up communications between servers and creating remote configuration lists.

For a remote configuration list to take effect, all devices for the particular remote location must be varied off. To make sure that all devices are varied off, enter `WRKCFGSTS *DEV *LOC RMTLOCNAME(remote location)` at an iSeries command line, where *remote location* is the name of the remote location that you want to define as a secure location.

4. The Token-Ring local area network (LAN) addresses for secondary servers are set for all Content Manager for iSeries client workstations.

   The CONFIG.PCS file located in your Client Access/400 directory must contain one of the following lines for each server:

   ```
   TRLI <system name>, <token-ring address>

   ADRS <system name>, <AS/400 name>
   ```

5. Client Access/400 is installed on all servers (primary and secondary) and on all workstations.
6. Client Access/400 has been updated with the addresses of all servers, primary and secondary.
7. Each server is assigned as a system shared folder in Client Access/400.
8. If a library named EKDTEMP already exists on the system, you must either rename or delete it.

Content Manager for iSeries is shipped on the iSeries stacked media. Use the Work with Licensed Programs menu to load all product components on the iSeries. From the menu, you can perform all required program management functions, such as deleting, and updating Content Manager for iSeries.

To access the Work with Licensed Programs menu, type GO LICPGM on the iSeries command line and select the national-language version of Content Manager for iSeries appropriate for your iSeries system.

From the Install Licensed Program panel, specify option one next to both the IBM Content Manager for iSeries option and the Object Server option. You must install both options successfully to have a complete copy of Content Manager for iSeries on your system. Once the product has been successfully installed, it is necessary to perform the post installation command, EKDPOST, to define a working environment for your users.

Appendix B. Notices

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Glossary

This glossary defines terms and abbreviations used in this book and the product document library. Refer to the *IBM Dictionary of Computing*, ZC20-1699-09, for terms or abbreviations that do not appear here.

The following cross-references are used in this glossary:

- **Contrast with.** This refers to a term that has an opposed or substantively different meaning.
- **See.** This refers the reader to multiple-word terms in which this term appears.
- **See also.** This refers the reader to terms that have a related, but not synonymous, meaning.
- **Synonym for.** This indicates that the term has the same meaning as a preferred term, which is defined in the glossary.

A

access list. A list consisting of one or more individual user IDs or user groups and the *privilege set* associated with each user ID or user group. You use access lists to control user access to items in Content Manager for iSeries. The items that can be associated with access lists are *index classes*, *workbaskets*, and *processes*.

action list. An approved list of the actions, defined by a supervisor, that a user can perform while working with items in a workbasket.

ad hoc route. A route that is not part of a defined process. An *ad hoc route* is started when a user assigns an item directly to a workbasket. The user manually routes the item from one workbasket to another by reassigning it.

administrator. The person responsible for system management, controls, and security, as well as case statistics. Synonymous with system administrator.

advanced peer-to-peer networking (APPN). Data communications support that routes data in a network between two or more APPC systems that are not directly attached.

advanced program-to-program communications (APPC). Data communications support that allows programs on an iSeries server to communicate with programs on other systems having compatible communications support. This communications support is the iSeries method of using the SNA LU session type 6.2 protocol.

annotation. An added descriptive comment or explanatory note.

APAR. Authorized Program Analysis Report.

API. Application programming interface.

application programmer. A programmer who designs programming systems and other applications for a user's system.

application program interface (API). The formally-defined programming language interface which is between an IBM system control program or a licensed program and the user of the program.

APPC. Advanced program-to-program communications.

APPN®. Advanced Peer-to-Peer Networking.

archiving. The storage of backup files and any associated journals, usually for a given period of time.

AS/400®. Application System/400®.

attribute. Used in Content Manager for iSeries APIs, a single value associated with an item (document or folder). Each index class can have up to eight attributes.

B

binary large object (BLOB). A large stream of binary data treated as a single object.

C

cartridge. (1) A storage device that consists of magnetic tape, on supply and takeup reels, in a protective housing. (2) For optical storage, a plastic case that contains and protects optical disks, permitting insertion into an optical drive. See also *optical disk* and *cartridge storage slots.*

cartridge storage slots. An area in an optical library where cartridges are stored.

collection. The definition of storage management controls associated with a group of objects that typically have similar performance, availability, backup, and retention characteristics.

collection point. (1) The point where work packages wait for specific events to either occur or become synchronized before processing can continue. (2) A collection point is part of a work process. For example,

a collection point is where work packages that are part of the “open a new account” work process must wait until credit information is verified. See also *decision point*.

content class. A number that indicates the data format of an object, such as MO:DCA, TIFF, or ASCII.

control files. Files that govern the categories of work performed by an operator and the types of documents the system recognizes.

convenience workstation. A display workstation equipped with a printer and a scanner.

current document. A document that is being processed.

customization. The process of designing a data processing installation or network to meet the requirements of particular users.

D

DASD. Direct access storage device.

DDM. Distributed data management.

DBCS. Double-byte character set.

decision point. (1) The point where work packages continue on their current route or switch to an alternate route, depending on the specific information in each work package. Decision points are tables consisting of variable names, values, and routes. (2) A decision point is part of a work process. For example, a decision point is where work packages that are part of the “open a new account” work process receive approval or not based on credit information.

See also *collection point*.

direct access storage device (DASD). A device in which access time is effectively independent of the location of the data.

distributed data management (DDM). A feature of the System Support Program that lets an application program work on files that reside in a remote system.

display workstation. An image processing workstation used primarily for displaying documents that have been previously scanned or imported into the iSeries server.

document. (1) An item containing one or more base parts. (2) A named, structural unit of text that can be stored, retrieved, and exchanged among systems and users as a separate unit. Also referred to as an *object*. A single document can contain many different types of base parts, including text, images, and objects such as spreadsheet files.

document content architecture (DCA). An architecture that guarantees information integrity for a document being interchanged in an office system network. DCA provides the rule for specifying form and meaning of a document. It defines revisable form text (changeable) and final form text (unchangeable).

double-byte character set (DBCS). A set of characters in which each character occupies two bytes. Languages, such as Japanese, Chinese, and Korean, that contain more symbols than can be represented by 256 code points, require double-byte character sets. Entering, displaying, and printing DBCS characters requires special hardware and software support.

E

export. A process used to write data from a document in a system folder to a file. Export and import processes can be used to transfer documents among systems.

F

first in first out (FIFO). A queueing technique in which the next item to be retrieved is the item that has been in the queue for the longest time.

folder. In Content Manager for iSeries, an object that can contain other folders or documents.

folder balancing. In the iSeries, the process by which documents are distributed evenly among the available folders in the system.

folder manager. In IBM Content Manager for iSeries systems other than Content Manager for iSeries, the term used to describe the data model and a subset of the APIs. In Content Manager for iSeries, this term refers to the entire set of Content Manager for iSeries APIs.

G

Group III. A compression algorithm that conforms to a standard promulgated by the International Telegraph and Telephone Consultative Committee (CCITT).

H

HTML. Hypertext markup language.

I

image. (1) A single page of information; the result of scanning, or digitizing, a single sheet of paper. (2) An electronic representation of a picture produced by means of sensing light, sound, electron radiation, or other emanations from the picture or reflected by the

picture. An image can also be generated directly by software without reference to an existing picture. See also *page image*.

image data. Rectangular arrays of raster information that define an image. Image data is often created originally by a scanning process.

image host. The system where scanned and imported documents are permanently stored. See also *optical library subsystem*.

Image Object Content Architecture (IOCA). A structured collection of constructs used to interchange and present images.

image workstation. A programmable workstation that can perform image functions.

importing. A process by which documents are input into iSeries using files rather than the scanning process. Imported documents can be stored in Content Manager for iSeries on DASD and optical, and displayed and printed, in the same manner as scanned documents.

inbound. Pertaining to communication flowing in a direction towards the application program from external sources, such as a transmission from a terminal to the application program. Contrast with *outbound*.

index. To associate a document or folder with an index class and provide the key field values required by that class.

index class. A category for storing and retrieving objects, consisting of a named set of attributes known as *key fields*. When you create an item in Content Manager for iSeries, your application must assign an index class and supply the key field values required by that class. An index class identifies the automatic processing requirements and storage requirements for an object.

instance. An occurrence of a work package within a process. If the process consists of parallel routes, multiple instances of a work package exist.

iSeries object directory profile. A control file used in Content Manager for iSeries to identify iSeries object directories used for image document storage.

item. (1) Set of attributes and objects–one or more files containing image data, annotations, notes, or other content–that together represent a physical document, such as an insurance claim or a folder.

See also *document*. (2) The smallest unit of information that the library server administers. An item can be a folder, document, workbasket, or process. Referred to as an *object* outside of library server functions.

K

key field. An attribute of an item that represents a type of information about that item. For example, a customer data item might have key fields for the customer's name and social security number.

keyword. A name or symbol that identifies a parameter.

L

LAN. Local area network.

language profile. A control file used in Content Manager for iSeries to define country-specific parameters, such as time and date formats.

last in, first out (LIFO). A queueing technique in which the next item to be retrieved is the item most recently placed in the queue.

library server. The component of Content Manager for iSeries that contains index information for the items stored on one or more *object servers*.

LIFO (last in, first out). A queueing technique in which the next item to be retrieved is the item most recently placed in the queue.

local area network (LAN). A computer network located on a user's premises within a limited geographical area.

LU 6.2. In Systems Network Architecture (SNA), a type of session between two application programs in a distributed processing environment, using the SNA character string or a structured-field data stream; for example, an application program using CICS® communication with an iSeries application.

M

Machine-Generated Data Structure (MGDS). Data extracted from an image and put into generalized data stream (GDS) format.

magnetic storage. A storage device that uses the magnetic properties of certain materials.

magnetic tape. A tape with a magnetizable layer on which data can be stored.

magnetic tape device. A device for reading or writing data from or to magnetic tape.

MGDS. Machine-Generated Data Structure.

Mixed Object: Document Content Architecture (MO:DCA). An IBM architecture developed to allow the interchange of object data among applications within the interchange environment and among environments.

Mixed Object: Document Content Architecture-Presentation (MO:DCA-P). A subset architecture of MO:DCA that is used as an envelope to contain documents that are sent to the Content Manager for iSeries workstation for displaying or printing.

MO:DCA. Mixed Object: Document Content Architecture.

MO:DCA-P. Mixed Object: Document Content Architecture-Presentation.

MRI. Machine-readable information.

N

national language support (NLS). The modification or conversion of a United States English product to conform to the requirements of another language or country. This can include enabling or retrofitting of a product and the translation of nomenclature, MRI, or product documents.

network. An arrangement of programs and devices connected for sending and receiving information.

network table file. A text file created during installation that contains the system-specific configuration information for each node for each Content Manager for iSeries server. Each server must have a network table file that identifies it. The name of the network table is always FRNOLNT.TBL.

NLS. National language support.

O

object. (1) An item upon which actions are performed.

A collection of data referred to by a single name.

The smallest unit within the system. For Content Manager for iSeries systems, this is typically a single-image document. (2) Any binary data entity stored on an object server. In the Content Manager for iSeries data model, *object* specifically refers to a document's contents or parts.

object authority. The right to use or control an object.

object directory. A control file used in Content Manager for iSeries to identify iSeries object directories used for image document storage.

object server. The component of IBM Content Manager for iSeries that physically stores the objects or information that client applications store and access.

operator. The person who handles daily system administrative tasks.

optical. Pertaining to optical storage.

optical cartridge. A storage device that consists of an optical disk in a protective housing. See also *cartridge*.

optical disk. A disk that contains digital data readable by optical techniques. Synonymous with digital optical disk.

optical drive. The mechanism used to seek, read, or write data on an optical disk. An optical drive may reside in an optical library or as a stand-alone unit.

optical libraries. Software used to store image data on optical platters. Only direct-attached optical systems contain optical libraries.

optical library subsystem. The hardware and software that provides the long-term storage of the image data. See also *image host*.

Optical Storage Support. Software that supports communication between stand-alone optical disk drives, the optical library, and Content Manager for iSeries. The software runs on the System/36™ 5363 unit serving as the optical controller.

optical system profile. A file used to define the optical controller used for the optical storage of documents.

optical systems. Hardware used to store image data on optical platters. Only direct-attach optical systems contain optical libraries.

optical volume. One side of a double-sided optical disk containing optically stored data.

OS/2®. Operating System/2®.

OS/400. Operating System/400®.

outbound. Pertaining to a transmission from the application program to a device. Contrast with *inbound*.

override. A parameter or value that replaces a previous parameter or value.

P

page. A single physical medium; for example, an 8.5-inch by 11-inch piece of paper.

page image. The electronic representation of a single physical page. The bounds of a page image are determined by the electromechanical characteristics of

the scanning equipment, along with the image capture application specifications in the receiving data processing system.

page scan. The electromechanical process of scanning a physical page (paper) to create a bit image of the page.

pan. Progressively translating an entire display image to give the visual impression of lateral movement of the image.

PDF. Portable document format.

platter. See *optical disk.*

Presentation Text Object Content Architecture (PTOCA). An architecture developed to allow the interchange of presentation text data.

primary processor. In a group of processing units, the main processing unit and its internal storage through which all other units communicate.

printer workstation. A display workstation equipped with a printer.

priority. (1) A rank assigned to a task that determines its precedence in receiving system resources. (2) In Content Manager for iSeries workflow, the priority of the work to be performed. The priority affects the work sequencing of the work package. A larger number is a higher priority.

privilege. An authorization for a user to either access or perform certain tasks on objects stored in Content Manager for iSeries. The system administrator assigns privileges.

privilege set. In Content Manager for iSeries, collection of *privileges* for working with system components and functions. The system administrator assigns privilege sets to users (user IDs) and user groups.

process. The series of steps, events, and rules through which a work package flows. A process is a combination of the route, collection point, and decision point through which a predefined type or work package must progress.

For example, a process called ″open new account″ would describe the following:

- The steps that work packages related to opening a new account must follow
- The events (such as verifying credit information) that must occur before work packages for new accounts can be routed to another point in the system
- The decisions that determine whether to open a new account based on the information for that particular account (for example, a good credit rating versus a poor one).

process item. Item used as a building block in a work process.

profile. A file that governs the categories of work performed and the types of users recognized by the system.

program temporary fix (PTF). A temporary solution or bypass of a problem diagnosed by IBM as resulting from a defect in a current unaltered release of the program.

PTF. Program temporary fix.

PTOCA. Presentation Text Object Content Architecture.

R

release. To remove suspend criteria from a work package so that it is available to be worked. A suspended work package is released when the criteria have been met, or when a user with proper authority overrides the criteria and manually releases pend requests.

render. To take data that is not typically image-oriented and depict or display it as an image. In Content Manager for iSeries, you can render word-processing documents as images for display purposes.

resolution. In computer graphics, a measure of the sharpness of the image, expressed as the number of lines and columns on the display screen or the number of pels per unit of area.

rotate. A function of the document display window and the scan document display window. The orientation depends on the option selected.

route. A set of steps that move work between workbaskets, collection points, and decision points.

S

SBCS. Single-byte character set.

scanner. A device that examines a spatial pattern one part after another and generates analog or digital signals corresponding to the pattern.

scanner workstation. A display workstation equipped with a scanner.

scanning. A physical process that enters documents into an Content Manager for iSeries workstation. After a document has been scanned, it can be stored permanently.

search criteria. In Content Manager for iSeries, the text string used to represent the logical search to be performed on the library server.

secondary processor. In a group of processing units, any processing unit other than the primary unit.

server. On a local area network, a data station that provides facilities to other data stations; for example, a file server, a print server, a mail server.

side by side. A function on the document display window that displays two pages of a multipage document next to each other.

single-byte character set (SBCS). A set of characters in which each character occupies one byte.

slot. (1) A position in a device used for removable storage media. (2) A space in an optical library where an optical cartridge is stored. See *optical cartridge*.

SMS. System-managed storage.

spool file. A file that holds output data waiting to be printed or input data waiting to be processed by a program.

staging. The process of moving a stored object from an off-line or low-priority device back to an on-line or higher priority device, usually on demand of the system or on request of a user. When a user requests an object stored in permanent storage, a working copy is written to the *staging area*.

stand-alone. Pertaining to an operation that is independent of any other device, program, or system.

storage. The action of placing data into a storage device.

storage class. A storage class, in combination with an optical system identifier, defines the set of optical volumes upon which documents can be stored. Documents with the same storage class and optical system ID are stored on the same optical volume.

storage method. A means of grouping documents together for storage to an optical disk.

storage system. A generic term for storage in Content Manager for iSeries.

subsystem. A secondary or subordinate system, or the programming support part of a system that is usually capable of operating independently of or asynchronously with a controlling system.

suspend. To hold a work package at a workbasket until stated criteria have been satisfied. Work packages can be suspended for multiple criteria, therefore multiple suspend requests can exist for a work package. A document work package can be suspended for a specific date. A folder work package can be suspended for a specific date or index class.

system administrator. The person who manages the Optical Library Subsystem and the departmental processor. The system administrator helps with problem determination and resolution. Synonymous with *administrator*.

system-managed storage (SMS). The Content Manager for iSeries approach to storage management. The system determines object placement, and automatically manages object backup, movement, space, and security.

System Support Program (SSP). A group of IBM-licensed programs that manage the running of other programs and the operation of associated devices, such as the display station and printer. The SSP also contains utility programs that perform common tasks, such as copying information from diskette to disk.

T

tape. See *magnetic tape*.

tape cartridge. See *cartridge*.

U

user. Anyone requiring the services of Content Manager for iSeries. This term generally refers to users of client applications rather than the developers of applications, who use the Content Manager for iSeries APIs.

user exit. (1) A point in an IBM-supplied program at which a user exit routine may be given control. (2) A programming service provided by an IBM software product that may be requested during the processing of an application program for the service of transferring control back to the application program upon the later occurrence of a user-specified event.

user exit routine. A routine written by a user to take control at a user exit of a program supplied by IBM.

user ID profile. A file that contains one entry for each user. The entries contain information such as processing eligibility.

V

volume. A certain portion of data, together with its data carrier, that can be handled conveniently as a unit.

W

workbasket. A container that holds work packages. Workbaskets can be used as parts of process definitions

or ad-hoc routes. In Content Manager for iSeries, a logical location within the Content Manager for iSeries system to which work packages can be assigned to wait for further processing.

A workbasket definition includes the rules that govern the presentation, status, and security of its contents.

workflow. A system that lets an enterprise define a work process and environment to automate workflow and control business processes.

work order. The sequence of work packages in a workbasket.

work package. The work that is routed from one location to another. Users access and work with work packages through workbaskets.

work process. In work management, the series of steps, events, and rules through which a work package flows. A work process is a combination of the route, collection point, and decision point through which a work package must progress.

workstation. A computer processor unit, image display unit, scanners, and printers with which the user performs input, indexing, and printing.

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